

REMARKS

Claims 1-5 presently appear in this case. No claims have been allowed. The Official Action of August 22, 2000, has now been carefully studied. Reconsideration and allowance are respectfully urged.

Rejections under 35 U.S.C. 112

Claims 1 and 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner alleges that the term "or an analogue thereof" is lacking in properly defined metes and bounds. Additionally, the Examiner alleges that the individual included terms within the term "alkyl group ... silyl group" lack an upper bound and therefore render the claim indefinite. The term "alkinyl" is said not to be an IUPAC recognized name. In claim 1, the term "or an amidite derivative thereof" is said to be indefinite. In claim 3, the term "phosphino" appears to be technically incorrect.

This rejection is respectfully traversed. The claims have been amended in accordance with the Examiner's helpful suggestions. However, with respect to the upper limits of the various organic groups, it is respectfully submitted that an upper bound of these groups is not necessary for one skilled in the art to clearly define the scope of the present

In re Appl. No. 09/380,638

invention. As the Federal Circuit stated in *North American Vaccine, Inc. v. American Cyanamid Co.*, 28 USPQ2d 1333, 1339 (Fed. Cir. 1993), "Whether a claim is invalid for indefiniteness depends on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the specification." One skilled in the art, without undue experimentation, could readily determine what the upper limits of each of these groups should be, whether by steric hindrance, difficulty of reaction, etc.

With respect to the term "amidite", this is a well recognized term in the art, as evidenced by the copies of the following references which use this term with respect to oligodeoxyribonucleotide synthesis:

Beaucage, Chapter 3, "Oligodeoxyribonucleotide Synthesis", *Methods in Molecular Biology Vol. 20: Protocols for Oligonucleotides and Analogs*, Agrawal, ed., 1993, Humana Press Inc. Totowa, NJ

Baldwin et al., *Tetrahedron* **1993** 49, 6309

Beaucage et al., *Tetrahedron* **1992** 48, 2223

Additionally, amidite derivatives are referred to in the specification as filed at page 13, lines 3-5 and page 43, line 9. It is clear to one skilled in the art which is an amidite compound.

With respect to the term "or analogue thereof", analogues of a pyrimidine or purine nucleic acid base that can be used.

In re Appl. No. 09/380,638

in the present invention, i.e., as antisense compounds, are well known and understood by those of skill in the art. Accordingly, the metes and bounds of such a derivative are readily recognized based upon the guidance and teachings of the present invention.

Submitted herewith are copies of two well-known reference texts, Lehninger et al., *Principles of Biochemistry*, Second Edition, 1993, Worth Publishers, New York, New York, and *Antisense Research and Applications*, Chapter 15, pp. 273-288, eds. Crooke and Lebleu, 1993, CRC Press, Boca Raton, FL. Lehninger et al. provide the background on pyrimidine and purine nucleic acid bases, and the *Antisense Research and Applications* reference text teaches one where modifications can be made to pyrimidine and purine bases in antisense nucleoside. Given the disclosure of the present invention provided by the specification and the common knowledge in the highly skilled areas of nucleic acid chemistry and antisense technology, the term "analogue" of pyrimidine or purine nucleic acid bases certainly cannot be considered to be indefinite and would be well understood by those of skill in this art.

#### Art Rejection

Claims 1-2 are rejected under 35 U.S.C. 102(a) and (f) as being anticipated by Obika et al.

This rejection is respectfully traversed. Submitted

In re Appl. No. 09/380,638

herewith is a certified translation of the priority documents including the basic specification and claims. It is respectfully submitted that this translation demonstrates that the present application is entitled to the priority date of the Japanese application, which date, March 7, 1997, predates the December 15, 1997 publication date of Obika et al.

Allowable Subject Matter

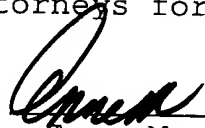
It is noted that claims 3-5 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112. However, in view of the above, it is believed that claims 3-5 should be allowable without further amendments.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.  
Attorneys for Applicant(s)

By



Anne M. Kornbau  
Registration No. 25,884

Telephone No.: (202) 628-5197  
Facsimile No.: (202) 737-3528  
AMK:nmp

f:\y\yuas\imanshi1\pto\jan 17 01 amend

A